



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,717	08/30/2001	Shin Okamoto	2185-0569P	7140

2292 7590 01/03/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SADULA, JENNIFER R

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 01/03/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,717

Applicant(s)

OKAMOTO ET AL.

Examiner

Jennifer R. Sadula

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/30/2002 & 4/26/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 4/26/2002 has been considered by the examiner. However, the examiner wishes to note that these references merely submitted with English translations of an abstract have only been considered on the merits of that which was in English and no more.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "1" and "2" have both been used to designate the same piece of machinery, although it is unclear what exactly either reference character is pointing to. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: there are assorted grammatical errors throughout the specification. Examiner requires that the specification be checked for such errors as the specification appears to be a rough translation from a previous filing. Examples of such errors include the following lines of text: page 1, line 10 ("because of their rigidity of molecule"); page 1, line 16- words run together due to lack of adequate spacing; page 1 line 20, "Because of such reason..."; etc. Appropriate correction is required.

Art Unit: 1756

Furthermore, the abstract need be thoroughly checked for similar grammatical errors. An example of such an error in the specification includes line 3, "having a molecular weight of exceed 600,000..." Appropriate correction is required.

Lastly, the brief description of the drawings is unclear as to what the reference characters are pointing to. Further, the teaching of this piece of machinery is not taught anywhere in the specification to enable one of ordinary skill in the art to a) use the machine or b) conduct the experimentation and understand the figures. Appropriate correction is required.

Claim Objections

Claims 1-4 are objected to because of the following informalities: claim 1 contains grammatical errors such as, "having a molecular weight of exceed 600,000...". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward et al., U.S. Patent No. 6,017,834, ("Ward").

Ward discloses a monolithic polymer produce having high stiffness and strength comprising a liquid crystalline polyethylene spun material such as the parahydroxybenzoic acid

Art Unit: 1756

as claimed in Applicants claim 2 (abstract and 4:33) The molecular weight may be anywhere from 50,000 to 3,000,000, depending upon the intended use of the material (3:53-56).

Anisotropic properties may be exhibited in the molten state.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward, as applied above in view of Nagashima et al., U.S. Patent No. 6,194,524 ("Nagashima")

Ward discloses a monolithic polymer produce having high stiffness and strength comprising a liquid crystalline polyethylene spun material such as the parahydroxybenzoic acid (PHB) as claimed in Applicants claim 2 wherein the molecular weight may be anywhere from 50,000 to 3,000,000, depending upon the intended use of the material (3:53-56). However, Ward fails to disclose the flow temperature of the resin materials.

Nagashima discloses a thermoplastic resin composition utilizing PHB wherein the high heat-resistant thermoplastic resin has a flow temperature of 150-450°C at 48000 poise (5:14-21). Nagashima fails to disclose the specific MW of the material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to either test the compositions of Ward for flow temperatures of Nagashima or to utilize materials of Ward having flow temperatures as taught by Nagashima's as Nagashima

Art Unit: 1756

teaches that such provides for superior crack resistance and high heat resistance and both are qualities desired by Ward.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maeda et al., U.S. Patent No. 6,346,568 teaches a liquid crystal polyester resin composition and molded article thereof wherein the material contains repeating structural units of PHB

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer R. Sadula whose telephone number is 703.305.4835. The examiner can normally be reached on Monday through Friday, 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 703.308.2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9310 for regular communications and 703.872.9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.

JRS
December 27, 2002


SHEAN C. WU
PRIMARY EXAMINER